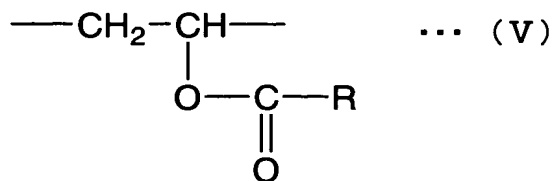
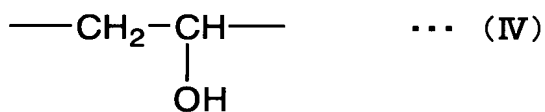
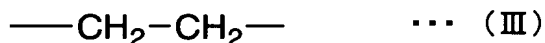
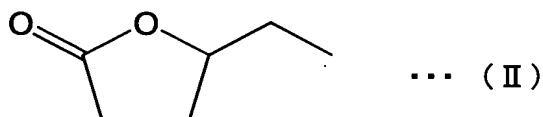
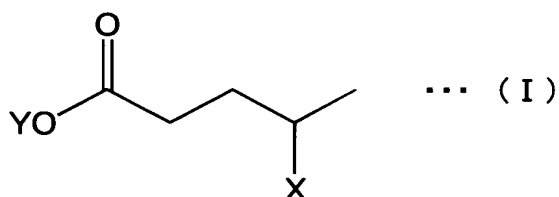


## CLAIMS

1. An ethylene-vinyl alcohol based copolymer, comprising ethylene units (III), vinyl alcohol units (IV), and vinyl ester units (V), characterized in that the proportion of the ethylene units (III) with respect to the total of the units (III + IV + V) is from 20 to 60 mole %, and the proportion of the total (I + II) of carboxylic acids units (I) and lactone ring units (II) in copolymer terminals with respect to the total (III + IV + V) of the units is 0.12 mole % or less, the respective units (I) through (V) represented by the following formulae:



where X is a hydrogen atom, a hydroxyl group, or an esterified hydroxyl group, Y is a hydrogen atom, an alkali metal, or an alkaline earth metal, and R is a linear or branched alkyl group.

2. The ethylene-vinyl alcohol based copolymer according to claim 1,

wherein the proportion of the vinyl ester units (V) with respect to the total (IV + V) of the vinyl alcohol units (IV) and the vinyl ester units (V) is 0.20 mole % or less.

5           3. The ethylene-vinyl alcohol based copolymer according to claim 1, wherein the expression  $G < 1.53 - 0.0239 \times Eu$  is satisfied, where G is a numerical value representing the content of 1,2-glycol units, expressed as mole %, and Eu is a numerical value representing the proportion of the ethylene units (III) with respect to the total (III + IV + V) of the ethylene  
10 units (III), the vinyl alcohol units (IV), and the vinyl ester units (V), expressed as mole %.

          4. An ethylene-vinyl alcohol based copolymer resin composition comprising an ethylene-vinyl alcohol based copolymer according to claim 1,  
15 and 10 to 1000 ppm of an alkali metal salt in terms of metal.

          5. A method for producing an ethylene-vinyl alcohol based copolymer according to claim 1, the method comprising the steps of:

          saponifying an ethylene-vinyl ester based copolymer wherein the  
20 proportion of ethylene units (III) with respect to the total (III + V) of the ethylene units (III) and vinyl ester units (V) is from 20 to 60 mole %, to obtain an ethylene-vinyl alcohol based copolymer; and

          reducing at least one substance selected from the ethylene-vinyl ester based copolymer and the ethylene-vinyl alcohol based copolymer by  
25 contacting the at least one substance with a reducing agent.

          6. A method for producing an ethylene-vinyl alcohol based copolymer according to claim 1, the method comprising the steps of:

          copolymerizing ethylene and a vinyl ester so that the proportion of  
30 ethylene units (III) with respect to the total (III + V) of the ethylene units (III) and vinyl ester units (V) becomes 20 to 60 mole % to obtain an ethylene-vinyl ester based copolymer; and

          saponifying the ethylene-vinyl ester based copolymer to obtain an ethylene-vinyl alcohol based copolymer,

35           wherein, in the step of copolymerizing, a polymerization temperature is set at  $-20^{\circ}\text{C}$  to  $90^{\circ}\text{C}$ , and a polymerization rate is 3% to 48% with respect to the vinyl ester.

7. The method for producing an ethylene-vinyl alcohol based copolymer according to claim 6, wherein, in the step of copolymerizing, a polymerization time is set to be in the range of from 1 hour to 7 hours.